

**DEPARTMENT OF ENERGY
HOISTING & RIGGING TECHNICAL ADVISORY
COMMITTEE**

MEETING MINUTES

Rosemont, IL

May 21, 2002

Committee Chairperson, Pat Finn, Department of Energy (DOE-HQ, EH-53) called the meeting of the DOE Hoisting and Rigging Technical Advisory committee (HRTAC) to order. Mr. Finn welcomed attendees and introductions were made.

Mr. Finn distributed DOE's Worker Health and Safety Response Line interpretations involving hoisting and rigging completed since last year's meeting in Princeton, NJ. If anyone has any questions concerning these interpretations, please give Mr. Finn a call (301)903-9876 or e-mail pat.finn@eh.doe.gov.

Mr. Finn reviewed the status of a work group of OSHA's Advisory Committee on Construction Safety and Health (ACCSH) tasked with making recommendations to OSHA concerning revisions to 29 CFR 1926, Subpart N. This subpart deals with the use of Cranes, Hoists and Derricks in the construction industry. OSHA has announced its intent to commence negotiated rulemaking in this area later this year. OSHA's proposal concerning this rulemaking is currently under OMB review.

The following technical presentations were made, many of which included proposed changes to the DOE Hoisting and Rigging Technical Standard, DOE-STD-1090-2001. Recommended or approved text changes are noted.

1. Mr. Graham Brent, the Executive Director of the National Commission for the Certification of Crane Operators (NCCCO), briefed the committee on the latest status of this voluntary national program. By January 2002, this program has certified over 13,000 operators in 45 states. Within DOE, sites whose construction is managed by Bechtel have imposed NCCCO operator certification requirements for subcontracted construction services. Further information on the NCCCO is available at <http://www.nccco.org/>.
2. Messrs Ron Gough and Curt Valle of Westinghouse, Kansas City Plant gave a presentation on the January 9, 2002, collapse of gantry crane at their site. The collapse occurred as a result of side loading of the crane. A forklift was laterally connected to the load in an effort to rotate the load from a vertical to horizontal

configuration. This procedure inadvertently resulted in an abrupt shifting of the load's center of gravity and subsequent toppling of the crane. Further details on this incident, including a video animation, are available at:

<http://tis.eh.doe.gov/oesummary/oesummary2002/oe2002-08.pdf>.

3. Mr. Lynn Holt, INEEL, made a proposal concerning revisions to Chapter 15, *Construction Hoisting and Rigging Equipment Requirements*. In brief, his proposal was to have Chapter 15 contain only provisions specific to construction and to incorporate by reference within Chapter 15 other applicable chapters in the Standard. As currently written, Chapter 15 is intended as a “stand-alone” chapter that repeats a number of requirements found in earlier chapters. However, in the interest of brevity, not all applicable requirements were carried over to Chapter 15, and in some instances inconsistencies may have resulted. The committee approved Mr. Holt's proposal.

4. Mr. Mike Berry, SRS, proposed changing Section 12.4.1.e., which addresses thread engagement of eyebolts used in rigging. As written, this section requires 1.5-thread diameters engagement, without regard to the material of the mating part. ANSI/ASME B18.15, *Forged Eyebolts*, specifies different thread engagement requirements for differing mating materials. The committee approved Mr. Berry's recommendation. Accordingly, Section 12.4.1.e will be replaced in its entirety to read as follows:

“To obtain rated capacities, minimum thread shank length engagement must be as follows:

Steel: 1 nominal thread diameter

Cast Iron, Brass, Bronze: 1.5 nominal thread diameters

Aluminum, Magnesium, Zinc, Plastic: 2 nominal thread diameters”

5. Mr. Dan Stevens, West Valley Project, made a presentation highlighting recent changes in ANSI/ASME B30.9, *Slings*. The predominant changes involve additional requirements for labeling and inspection of synthetic web and round slings. There was considerable discussion within the group as to whether this change results in the need for changes only to the Chapter 11 sections addressing web and round slings or whether these changes should be made to the General section of this chapter (as wire rope and alloy chain slings already have similar identification tag requirements). It was agreed that Messrs. Finn and Holt would further research this issue and prepare the necessary changes to Chapter 11.

6. Mr. Dana Morgan, Fluor Hanford, gave a brief presentation on the failure of a portable gantry crane (i.e., an A-frame supported hoist and trolley) at the Hanford Site. This was followed by a presentation by Mr. Mike Berry, SRS, in which a proposed draft for a new chapter in the Standard, *Portable Gantry Cranes (A-*

Frame Structures) was presented. There was considerable discussion as to whether this should be a stand-alone new chapter, a section of Chapter 16, *Miscellaneous Lifting Devices*, or be addressed in an expanded Section 8.1.12 dealing with hoist supports. No resolution as to an appropriate course of action could be reached in the allotted time. Messrs. Morgan, Berry, and Finn will further research this issue and, if appropriate, draft a letter ballot containing suggested revisions to the standard.

7. Mr. Dana Morgan, Fluor Hanford, pointed out an editorial error in Section 4.1.1.c. on page A-5 of Appendix A, *Procurement Guidelines*. This section should read as follows: “Welding shall be in accordance with ANSI/AWS D14.1.”

8. Mr. Mike Viola, PPPL, made a detailed proposal in which he reevaluated the tasks that fall respectively under daily preoperational checks, monthly wire rope inspections, frequent inspections and periodic inspections for overhead and gantry cranes (Chapter 7). After considerable discussion, it was determined that further research was necessary to fully reconcile existing OSHA and ASME requirements in this area. Messrs. Viola and Finn will undertake this effort and report back to the committee with their findings/recommendations.

9. Mr. Jack Heier, DOE-ID, pointed out that in Appendix A, page A-15, Section 14.1.a.1, that the cited reference is incomplete. It should read Federal Specification RR-C-271-D and should include a title. There was further discussion as to whether all aspects of this standard should apply (e.g., dimensional tolerances) or only the “chemical composition” requirements. Messrs. Berry and Viola will further research this issue and report their findings/recommendations to the committee. This applies as well to Section 15.1.a.1. where this standard is similarly cited.

10. Mr. John Hynan, BNL, gave a brief presentation on lift planning and critical lift procedures in place at Brookhaven National Laboratory. He provided a handout describing in considerable detail BNL’s program in this area. Those desiring this handout may contact Mr. Hynan at hynanj@bnl.gov.

11. Mr. Dan Stevens gave a presentation on the structural failure of a load-indicating device during a lift at the West Valley Project. Subsequent discussions ensued as to whether Section 12.8 adequately addressed the safe use of these devices. It was agreed that no changes were needed in this section other than the word “Dynamometers” will be changed to “Load-indicating devices” in Section 12.8.c.

12. Mr. Viola, PPPL, questioned whether the periodic inspection requirements for Portable Automotive Lifting Devices (PALD) are properly reflected in Chapter 16 of the Standard. He will further research this issue and report back to the committee.

13. A motion was made and approved to designate multi-equipment lifts as critical lifts under Section 2.1. Accordingly, the following sentence will be added to the end of Section 2.1.c, “Also, all multi-equipment lifts shall be designated critical lifts.”

14. It was suggested and approved that a statement be added to the Standard’s Introduction wherein it states that the Standard does not address elevators, drilling, or lifting loads with construction equipment not normally intended for lifting purposes (e.g., excavators, payloaders).

15. There was no further new business discussed. The meeting was adjourned at 4:30 p.m.